

## CLAIMS

### What is claimed is:

#### Claims 1-7 (canceled)

Claim 8 (new): An automated adjustment system for video projectors for automating the projection parameters setting comprising:

means for projecting light video frames;

means for inputting a video signal, electrically connected to said means for projecting light video frames;

means for projecting light modulated video frames, initially mounted to said means for projecting light video frames;

means for capturing the projection surface, entirely embedded to said means for projecting light video frames;

means for converting a video frame signal into light image, initially assembled to said means for projecting light video frames; and

means for analyzing the video frames generated by said means for capturing the projection surface, computing updated brightness, color saturation, contrast and focus settings, electrically coupled to said means for capturing the projection surface, electrically connected to said means for projecting light modulated video frames, electrically connected to said means for converting a video frame signal into light image and internally embedded to said means for projecting light video frames.

Claim 9 (new): The automated adjustment system for video projectors in accordance with claim 8, wherein said means for projecting light video frames comprises a video projector.

Claim 10 (new): The automated adjustment system for video projectors in accordance with claim 8, wherein said means for inputting a video signal comprises a video input interface.

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Claim 11 (new): The automated adjustment system for video projectors in accordance with claim 8, wherein said means for projecting light modulated video frames comprises a motorized projection lens.

Claim 12 (new): The automated adjustment system for video projectors in accordance with claim 8, wherein said means for capturing the projection surface comprises a capture assembly made of one or two cameras, mounted on the front side of the video projector.

Claim 13 (new): The automated adjustment system for video projectors in accordance with claim 8, wherein said means for converting a video frame signal into light image comprises a light modulator.

Claim 14 (new): The automated adjustment system for video projectors in accordance with claim 8, wherein said means for analyzing the video frames from the capture assembly and computing updated brightness, color saturation, contrast and focus settings comprises a processor.

Claim 15 (new): An automated adjustment system for video projectors for automating the projection parameters setting comprising:

a video projector, for projecting light video frames;

a video input interface, for inputting a video signal, electrically connected to said video projector;

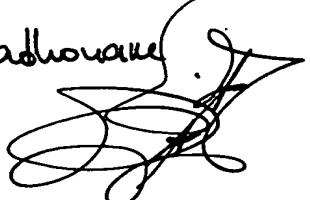
a motorized projection lens, for projecting light modulated video frames, initially mounted to said video projector;

a capture assembly made of one or two cameras, mounted on the front side of the video projector, for capturing the projection surface, entirely embedded to said video projector;

a light modulator, for converting a video frame signal into light image, initially assembled to said video projector; and

a processor, for analyzing the video frames generated by the capture assembly and computing updated brightness, color saturation, contrast and focus settings, electrically coupled to said capture assembly, electrically connected to said projection lens, electrically connected to said light modulator and internally embedded to said video projector.

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Claim 16 (new): A method for automating the projection adjustments for video projectors comprising the steps of:

- a) Inputting a video frame through a video projector input interface;
- b) Projecting the input video frame on a projection screen;
- c) Capturing said projection screen with a capture assembly;
- d) Analyzing the captured projection screen with a processor;
- e) Computing new settings: focus, brightness, contrast and color saturation with said processor;
- f) Updating the settings when necessary with said processor;
- g) Repeat a through e for the next input video frame.

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